REMARKS

The present Amendment is in response to the Office Action mailed March 23, 2009. Claims 1, 7 and 10 are amended. Claims 1-12 remain pending with claims 13-17 being withdrawn. Support for the amendments to claims may be found in, for example, on page 7, lines 3-17 and page 15, lines 10-27 of the specification.

Applicants note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. Applicants also note that the remarks presented herein have been made merely to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited reference. Such remarks, or a lack of remarks, are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicants: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicants reserve the right to challenge the purported teaching and prior art status of the cited references at any appropriate time. Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks.

Amendment To The Specification

The Examiner objects to the specification as failing to provide proper antecedent basis for the claimed subject matter. Although Applicants do not agree with the Examiner or admit that the specification fails to provide proper antecedent basis for the claimed subject matter, claims 1, 7, and 10 have been amended to delete "ridge-shaped". Applicants note that the rejection under 35 U.S.C. § 112, second paragraph is withdrawn since it is clear that scrubbing in a circumferential manner produces projections in a circumferential direction. As a result, Applicants respectfully submit that deleting the term "ridge-shaped" from the claims overcomes the rejection under § 112.

Rejection Under 35 U.S.C. § 103

The Office Action rejected claims 1-12 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,553,788 (*Ikeda*) in view of U.S. Patent No. 6,668,587 (*Fujimura*). Applicants traverse the Examiner's rejection for obviousness on the grounds that the references – either individually or in combination – fail to teach or suggest each and every element of the rejected claims.

Claim 1 recites, among other things, a feature of "the scrubbing forming the projections extending over the surface layer and a lower layer adjacent to the surface layer by removing the surface layer and the lower layer." As will be explained below, at least this feature of claim 1 is a distinction over each of *Ikeda* and *Fujimura*.

The Office Action states in pages 2 and 3:

> *Ikeda* discloses a method comprising: ...scrubbing line 58, col. 7, lines 51-55) ... to form a texture ... (emphasis added).

In process D of *Ikeda*, immersion-cleaning and scrub-cleaning are performed. However, *Ikeda* states in col. 6, lines 23 to 59:

> Between one acid treatment step and the next acid treatment step and after the final acid treatment step, a step of immersion-cleaning or scrub-cleaning with a neutral or alkaline solution may be included. This is for removing reaction products, contamination and foreign matter which are deposited on the substrate surfaces during the acid treatment step. Alternatively, the cleaning may be for removing an alteration layer different from the bulk layer, which may have grown on the top surface layer of the substrate in the acid treatment step. Alternatively, the cleaning may be for preventing contamination of the acid solution. Specifically, the acid solution remaining on the substrate surfaces by an nth acid treatment step (n is an integer equal to or more than 1) is cleaned off prior to an (n+1)th acid treatment step that uses an acid solution having a different composition or concentration from that in the nth acid treatment step. In other words, the cleaning step prevents contamination of the acid solution in the (n+1)th acid treatment step with the acid solution of the nth acid treatment step.
>
> When a substrate material is a glass or a crystallized glass, it is desirable to perform the immersion-cleaning or scrub-cleaning with an alkaline solution at least one or more times after the final acid treatment step.
>
> A purpose of the alkaline treatment is to remove a leaching layer (a layer formed by selectively eluting a component apt to dissolve in acid while maintaining the glass skeletal component) remaining on the surfaces of glass substrate or crystallized glass substrate by the acid treatment. The alkaline treatment prevents the deposition of a foreign substance consisting of an alkaline

> metal salt on the resulting substrate surfaces and reduces the diffusion of alkali metal into a multilayer film formed on the substrate. The occurrence of asperity and the depositions of foreign matter, consisting of carbonate of alkali metal and the like, on the substrate surface on which the fine texture is formed is limited by the alkaline treatment. (emphasis added)

These teachings demonstrate that the alkaline treatment (process D) of *Ikeda* removes an alteration layer or a leaching layer. Accordingly, *Ikeda* fails to disclose or suggest that the scrub-cleaning (process D) forms projections extending over the surface layer and a lower layer adjacent to the surface layer by removing the surface layer and the lower layer, as recited in claim 1.

Hence, the amended feature of claim 1, namely "the scrubbing forming the projections extending over the surface layer and a lower layer adjacent to the surface layer by removing the surface layer and the lower layer", is a distinction over *Ikeda* and is not disclosed by *Ikeda*.

The Examiner asserts that *Fujimura* teaches that it is useful to improve cleaning by including an abrasive in the scrub-cleaning process (col. 4, line 66 to col. 5, line 7). *Fujimura* states:

> The cleaning with a sponge roller or a sponge disk be carried out in the coexistence of a small amount of a slurry of a fine particulate abrasive in order to improve the effect of the scrub-cleaning.

However, *Fujimura* does not disclose or suggest using an abrasive in scrubbing the surface in a circumferential direction with a scrub member to form a texture. In other words, cleaning with a sponge roller in the coexistence of small amount of a slurry of a fine particulate abrasive does not disclose or suggest using an abrasive in scrubbing the surface in a circumferential direction with a scrub member to form a texture, as recited in claim 1.

Furthermore, *Fujimura* is directed to forming a substrate which is excellent in the surface smoothness. See col. 1, lines 15-25. In *Fujimura*, the scrub cleaning removes needle-like projections containing alkali metal carbonate to form a substrate which is excellent in the surface smoothness. *See* col. 4, lines 25 to 30 and lines 62 to 65 and claim 1 of *Fujimura*. Hence, "the scrubbing forming the projections extending over the surface layer and a lower layer adjacent to the surface layer by removing the surface

layer and the lower layer" is a distinction over *Fujimura* and is not disclosed by *Fujimura*.

In addition, *Fujimura* teaches inclusion of an abrasive in the scrub-cleaning process to improve the surface smoothness. To form a substrate which is excellent in the surface smoothness contradicts the element in claim 1 of "scrubbing the surface . . . to form a texture including a plurality of projections . . . ." Thus, *Fujimura* teaches away from at least these features of claim 1.

For at least these reasons, Applicants respectfully submit that claim 1 is patentable over the cited art and that the Office Action has not established a *prima facie* case of obviousness. More specifically, none of the references disclose the elements discussed herein including "scrubbing the surface in a circumferential direction with an abrasive and a scrub member to form a texture including a plurality of projections each extending in a circumferential direction of the surface, the scrubbing forming the projections extending over the surface layer and a lower layer adjacent to the surface layer by removing the surface layer and the lower layer".

Claim 10 includes at least some generally similar elements and is patentable for at least the same reasons. The dependent claims are patentable for at least the same reasons.

CONCLUSION

In view of the foregoing, Applicants believe the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated June 23, 2009.

Respectfully submitted,

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